



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region VII

**Subject:** POLREP #2  
Progress - removal action activities  
PCE Chestnut RV002  
B7A4  
Atlantic, IA  
Latitude: 41.4059050 Longitude: -95.0128540

**To:** Susan Fisher, SUPR/ERNB

**From:** Susan Fisher, OSC

**Date:** 2/1/2017

**Reporting Period:** August 24, 2016 through January 30, 2017

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	B7A4	<b>Contract Number:</b>	
<b>D.O. Number:</b>		<b>Action Memo Date:</b>	9/30/2016
<b>Response Authority:</b>	CERCLA	<b>Response Type:</b>	Time-Critical
<b>Response Lead:</b>	EPA	<b>Incident Category:</b>	Removal Action
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b>	10/5/2015	<b>Start Date:</b>	10/5/2015
<b>Demob Date:</b>		<b>Completion Date:</b>	
<b>CERCLIS ID:</b>	IAN000703467	<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	IDNR
<b>FPN#:</b>		<b>Reimbursable Account #:</b>	

#### 1.1.1 Incident Category

Inactive Production Facility

#### 1.1.2 Site Description

The PCE Chestnut Street site was identified during an investigation at the adjacent PCE Former Dry Cleaners site during March 2015, when analytical data from indoor air and sub-slab vapor samples collected within the downtown business district of Atlantic indicated elevated concentrations of tetrachloroethylene (PCE) unrelated to the PCE Former Dry Cleaners site. The suspected sources of contamination are former dry cleaning operations at 317 Chestnut Street, 320 Chestnut Street, and 500 Chestnut Street.

The PCE Chestnut Street site encompasses the downtown business district of Atlantic, Iowa. Removal activities conducted specific to PCE Chestnut Street RV002 were at 500 Chestnut Street, which is the former Cass County Cleaners building. From approximately 1991 to 2012 the Cass County Cleaners, a laundry and dry cleaning service, operated on the main level of the two-story building. As of April 2015, the main level and the basement of the building were unoccupied; however, the second floor was occupied for residential purposes.

##### 1.1.2.1 Location

Atlantic is a rural community in the northeastern portion of Cass County, Iowa, about 75 miles west of Des Moines, Iowa.

##### 1.1.2.2 Description of Threat

Vapor intrusion sampling was conducted at 500 Chestnut Street in July 2015. Indoor air sampling results determined that PCE and TCE were both present at concentrations above their EPA established removal action levels (RAL). Specifically, PCE was detected in indoor air up to 500 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) and TCE was detected up to 49.2  $\mu\text{g}/\text{m}^3$ . For reference, the RALs established for PCE and TCE at residential properties are 42  $\mu\text{g}/\text{m}^3$  and 2.1  $\mu\text{g}/\text{m}^3$ , respectively.

In addition, approximately 100 various-sized containers associated with the former Cass County Cleaners had been abandoned inside the building. Those containers included:

- Two 15-gallon poly drums with "Builder C NP", a liquid with pH of 14. This product was labeled corrosive. It was also noted that solid crystals were forming on top of the container and were falling to floor of building.
- One half full 50-pound bag of white solid powder labeled Tri Kovar Alkali (an ingredient is sodium hydroxide) with a pH of 13.
- A large dry cleaning machine containing 21 gallons of amber liquid in the east tank and 13 gallons of clear liquid in the west tank. Both tanks are suspected to contain PCE.

Located in the basement:

- Approximately 30 to 40 small containers, a portion of which appeared to have original labels. Some of the containers were spot cleaners and others were dry cleaning-related chemicals. One container was labeled "Picrin", whose main ingredient is TCE.
- Other dry cleaning chemicals, detergents, etc., remain inside the building.

PCE, TCE and materials with a pH above 12.5 are listed hazardous substances as defined in 40 CFR 261.22.

### **1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results**

Indoor air sample results, as described in Section 1.1.2 above, determined that PCE and TCE were present in indoor air at concentrations well above EPA RALs and presented a threat to the occupants residing on the second floor of the building. Additionally, an inventory of the abandoned chemicals inside the 500 Chestnut Street building was conducted the week of September 8, 2015, and identified hazardous wastes, including corrosives and other chemicals such as PCE and TCE. Specific hazardous waste identified are listed in Section 1.1.2 above.

## **2. Current Activities**

### **2.1 Operations Section**

#### **2.1.1 Narrative**

In October 2015, the abandoned containers were segregated and lab-packed according to the compatibility and disposal requirements. In addition, a PCE-containing solution that remained in a dry cleaning machine inside the building was recovered and containerized for disposal. In all, 18 containers, ranged in size from 5 to 55 gallons, were shipped off site by Clean Harbors Environmental Services to their facility in Kimball, Nebraska for proper disposal. The containers were removed from the site for proper disposal on November 5, 2015.

An indoor air sample was collected from the basement of 500 Chestnut Street in February 2016. That sample contained PCE at 20.77  $\mu\text{g}/\text{m}^3$ . A sample from the main level of the building was not collected at that time because the dry cleaning machine remained in the building (on the main level) where it likely emanates PCE vapors.

#### **2.1.1.1 Current Situation**

During the week of September 5, 2016, EPA removed dry cleaning-related equipment from the building for proper disposal. Additionally, a portion of the carpet inside the building was also removed for disposal. A sample of the carpet was collected and laboratory results determined it contained PCE at 184 milligrams per kilogram (mg/kg). Following those activities, an indoor air sample was collected on September 13, 2016. Results determined that PCE was still present at 286  $\mu\text{g}/\text{m}^3$ , well above its RAL established for residential properties, which is 42  $\mu\text{g}/\text{m}^3$ . Based on those results, samples of the building's flooring, wallboard, and ceiling tiles were collected to determine if removal of those items was warranted. Sample results determined flooring in the vicinity of the former dry cleaning equipment was contaminated with PCE (contained PCE up to 4,410 mg/kg) likely as a result of historical spills/operations. During the week of October 10, 2016, the EPA removed the contaminated wood flooring for proper disposal. The PCE-contaminated materials removed in September and October 2016 was transported to Lone Mountain disposal facility in Waynoka, Oklahoma, for proper disposal. Final disposal occurred on November 18, 2016, and included 1.62 tons of material. Following those activities, the EPA collected an indoor air sample on November 17, 2016, and laboratory results determined PCE was present at 5.3  $\mu\text{g}/\text{m}^3$ , well below its residential removal action level of 42  $\mu\text{g}/\text{m}^3$ . These sample results indicate that EPA's removal of PCE-contaminated materials from inside the 500 Chestnut Street building were effective in lowering the concentration of PCE in indoor air to below levels of health concern.

#### **2.1.2 Actions to Date**

See the removal action activities described above in Section 2.1.1.

#### **2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)**

The PRP search is ongoing. No PRP has been identified to date.

## **2.2 Planning Section**

### **2.2.1 Anticipated Activities**

The collection of soil samples from below the 500 Chestnut Street building is planned for February 2017. This sampling will be conducted to determine if historical operations has resulted in contamination of sub-surface soils.

#### **2.2.1.1 Planned Response Activities**

See anticipated activities described above in Section 2.2.1 above.

#### **2.2.1.2 Next Steps**

A CERCLA Preliminary Assessment and Site Inspection (PA/SI) is planned to be completed for PCE Chestnut Street site during 2017.

#### **2.2.2 Issues**

No issues at this time.

## **2.3 Logistics Section**

Not applicable. The Logistics Section is not activated due to the size of the removal action.

## **2.4 Finance Section**

### **2.4.1 Narrative**

The Emergency Removal Action pursuant to the OSC's delegated authority was approved on 9/17/2015. An Action Memorandum Amendment requesting a 12-month emergency exemption and removal project ceiling increase was approved on September 30, 2016.

### Estimated Costs \*

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	\$53,982.00	\$44,545.00	\$9,437.00	17.48%
START	\$38,281.08	\$24,000.00	\$14,281.08	37.31%
Intramural Costs				
Total Site Costs	\$92,263.08	\$68,545.00	\$23,718.08	25.71%

\* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

## 2.5 Other Command Staff

### 2.5.1 Safety Officer

A site Health and Safety Plan has been developed, approved, and signed by site personnel.

### 2.5.2 Liaison Officer

No information at this time.

### 2.5.3 Information Officer

No information at this time.

## 3. Participating Entities

### 3.1 Unified Command

Because of the nature of the site, a unified command structure has not been formalized. Local and state representatives are kept informed of activities and issues through routine communication.

### 3.2 Cooperating Agencies

City of Atlantic

Iowa Department of Natural Resources

## 4. Personnel On Site

EPA Employees

START contract personnel

ERRS contract personnel

## 5. Definition of Terms

CFR	Code of Federal Regulations
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EPA	Environmental Protection Agency
ERRS	Emergency and Rapid Response Services
IDNR	Iowa Department of Natural Resources
NPL	National Priorities List
OSC	On-Scene Coordinator
PCE	Tetrachloroethylene
PRP	Potential Responsible Party
RAL	Removal action level
START	Superfund Technical Assessment & Response Team
TCE	Trichloroethylene
ug/m <sup>3</sup>	micrograms per cubic meter
VOCs	volatile organic compounds

## 6. Additional sources of information

### 6.1 Internet location of additional information/report

- PCE (Tetrachloroethylene):
- A man-made chemical that is widely used for dry cleaning clothes.
  - It evaporates easily into the air.
  - A colorless liquid with a mild, chloroform-like odor - has a sharp, sweet odor.

TCE (Trichloroethylene):

- Used to remove grease from fabricated metal parts and in the production of some textiles.
- PCE degrades to TCE under certain circumstances.
- A colorless or blue liquid with a chloroform-like odor - has a sharp, sweet odor

For more information about these chemicals go to:

<http://water.epa.gov/drink/contaminants/basicinformation>

## **6.2 Reporting Schedule**

## **7. Situational Reference Materials**

No information available at this time.